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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,741	09/24/2003	Robert G. Capurso	054788/347543	4491
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/669,741

Applicant(s)

CAPURSO ET AL.

Examiner

Ashford S. Hayles

Art Unit

3687

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) 14-20 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-13 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 24 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date 09/24/2003
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

1. Applicant's election without traverse of claims 1-13 in the reply filed on August 25, 2008 is acknowledged. Therefore this communication is a first Office Action Non-Final rejection on the merits. Claims 1-13, as elected are currently pending and have been considered below.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 recites the limitation "and/or". It is unclear as to what the applicant is declaring as their invention. Appropriate correction required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-5 are rejected under 35 U.S.C. 102(b) as being unpatentable by Freeman et al. (#6,019,284) in view of Tuttle et al. (US RE40137).**

As per Claim 1, Freeman et al. discloses a transaction card (Figure 1, Credit Card 10), comprising:

a) a card body defining a recess (Col.4, lines 29-30 an integrated circuit 16 is mounted beneath a printed circuit board 18, which fits within a cutout in the card body) and a viewing window in the recess, the card body having long term information printed thereon (Figure 3, Embossed lettering 50);

b) a display tag including a character display for displaying short term information (Figure 1A, Display window 22), the character display having optical states that are stable without power (Col.4, lines 53-56 liquid crystal display (LCD) film 26, which is a bi-stable or multi-stable display material that will maintain an image when power has been removed) and viewable from one side of the tag (Figure 1A and 1B, depict the front and back of the card, only the front having the display) and an array of contacts for addressing the character display from the other side of the tag (Figure 1A, Contacts 20), the display tag being located in the recess with the character display being viewable through the viewing window (Figure 1C, depicts LCD Film 26 within the recess of the card);

d) means for providing machine readable data (Figure 1B, Magnetic Strip 34 and Barcode 36).

However, Freeman et al. fails to disclose a cap defining a contact window the cap being mounted in the recess over the display tag with the contacts being accessible through the contact window, an exposed surface of the cap being coplanar with a back surface of the card body.

Tuttle et al. teaches after provision of circuit 22 and one or both of components 36 and 38 within recess 14, a protective cover is ideally formed over circuit 22 and recess 14; a cap 40 can be adhered over substrate 10 and over recess 14. Cap 40 may

be adhered, by adhesive, such as glue, or by mechanical fasteners, such as staples or screws. (Col.5, lines 38-45).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the flexible chip card of Freeman et al. to include the protective cap as taught by Tuttle et al. in order to cover the electrical components and the conductive film with at least one protective cover (Abstract).

As per Claim 2, Freeman et al. discloses the transaction card claimed in claim 1, wherein the means for providing machine readable data is a magnetic stripe on the card body (Figure 1B, Magnetic Strip 34), an embedded memory chip with exposed contacts on the card body (Col.2, lines 40-42 comprising a memory for storing the information), or a bar code printed on the card body (Figure 1B, Barcode 36).

As per Claim 3, Freeman et al. discloses the transaction card claimed in claim 1, wherein the display tag comprises a bistable cholesteric liquid crystal display (Col.4, lines 53-55 liquid crystal display (LCD) film 26, which is a bi-stable or multi-stable display material that will maintain an image when power has been removed).

As per Claim 4, Freeman et al. discloses the transaction card claimed in claim 2, wherein the display tag comprises:

a) a substrate (Figure 1A-1C depict a transparent (or opaque or translucent) substrate 14);

b) a common electrode layer located on the substrate (Figure 1C, Transparent Electrodes 24) and defining a common electrode for each character in the display (Col.4, lines 41-43 the electrodes may be configured to provide either a dot matrix pattern or a segmented display pattern), the common electrodes including a contact

portion that extends to edge of the display (Col.4, lines 31-34 contacts 20 cover one entire surface of the printed circuit board and the contacts are exposed to the outside of the card through the cutout, to provide electrical connection to the card and Col.4, lines 53-54 The electrodes work in conjunction with liquid crystal display (LCD) film 26);

c) a bistable liquid crystal layer located over the common electrode layer, the bistable liquid crystal layer extending up to, but not over the contact portions of the common electrode layer (Figure 1C, LCD film 26, is between Transparent Electrodes 24 and away from Contacts 20);

d) a plurality of conductive character elements located on the bistable liquid crystal layer over each of the common electrodes (Col.4, lines 41-43 the electrodes may be configured to provide either a dot matrix pattern or a segmented display pattern);

e) a dielectric layer located over the conductive character elements, the dielectric layer defining vias to the character elements (Figure 1C, Transparent Layer 14 and Protective Layer 12); and

f) a corresponding plurality of conductive traces on the dielectric layer and in electrical contact with respective conductive character elements through the respective vias and extending from the respective vias to the edge of the display tag (Figure 1C, Z-axis conductor).

6. **Claims 5-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman et al. (#6,019,284) in view of Tuttle et al. (US RE 40137) further in view of Gustin et al. (5,987,439).**

As per Claim 5, Freeman et al. discloses a transaction card system, comprising:
a) a transaction card (Figure 1, Credit Card 10) having

i) a card body defining a recess and a viewing window in the recess (Col.4, lines 29-30 an integrated circuit 16 is mounted beneath a printed circuit board 18, which fits within a cutout in the card body), the card body having long term information printed thereon (Figure 3, Embossed lettering 50);

ii) a display tag including a character display for displaying short term information (Figure 1A, Display window 22), the display tag having optical states that are stable without power (Col.4, lines 53-56 liquid crystal display (LCD) film 26, which is a bi-stable or multi-stable display material that will maintain an image when power has been removed) and viewable from one side of the tag (Figure 1A and 1B, depict the front and back of the card, only the front having the display) and an array of electrical contacts for electrically addressing the character display from the other side of the tag (Figure 1A, Contacts 20), the display tag being located in the recess with the character display being viewable through the viewing window(Figure 1C, depicts LCD Film 26 within the recess of the card);

iv) means for providing machine readable data (Figure 1B, Magnetic Strip 34 and Barcode 36).

However Freeman et al. fails to disclose:

iii) a cap defining a contact window, the cap being mounted in the recess over the display tag with the contacts being accessible through the contact window, an exposed surface of the cap being coplanar with a back surface of the card body.

Tuttle et al. teaches after provision of circuit 22 and one or both of components 36 and 38 within recess 14, a protective cover is ideally formed over circuit 22 and recess 14; a cap 40 can be adhered over substrate 10 and over recess 14. Cap 40 may

be adhered, by adhesive, such as glue, or by mechanical fasteners, such as staples or screws. (Col.5, lines 38-45).

However the Freeman et al. and Tuttle combination fails to disclose:

- b) a transaction card writer having,
 - i) a reader for the machine readable data;
 - ii) an array of electrical contact pins arranged for making contact with the display tag through the contact window in the cap; and
 - iii) control electronics including means for receiving display commands and producing drive signals to the electrical contacts and means for communicating the machine readable data; and
- c) a central computer connected to the transaction card writer and having a data base and a central processor for receiving the data read by the magnetic card reader and generating display commands for the transaction card writer.

Gustin et al. teaches:

- b) a transaction card writer having (Abstract, the ATM machine includes a card reader and card writer to add the electronic payment portion to the balance on the card),
 - i) a reader for the machine readable data (Figure 4, Magnetic Card Reader 22);
 - ii) an array of electrical contact pins arranged for making contact with the display tag through the contact window in the cap (Col.8, lines 30-32 insert slot 14 will accept the usual ATM card, credit cards, IC cards or smart cards, which is well known in the art to consist of contact pins in order to make contact with the integrated circuit or EEPROM of the smart card); and

iii) control electronics including means for receiving display commands and producing drive signals to the electrical contacts and means for communicating the machine readable data (Col.8, lines 50-57 signals to the microcomputer 21 through a serial communication card 21a, and immediately cause initialization, via the microcomputer 21, of all hardware and software parameters for an operation. The touch screen 20 is provided to assist the user in identifying for the machine the area of the image occupied by the account number and dollar amount of a bill); and

c) a central computer connected to the transaction card writer (Col.9, lines 60-61 The modem 29 communicates with the computer 21 through the serial interface 21a to which it is connected) and having a data base (Col.8, lines 65-67 A backup storage device 23 connected to the computer 21 provides further security for the software and data stored on the hard drive) and a central processor for receiving the data read by the magnetic card reader (Figure 8, Step 306) and generating display commands for the transaction card writer (Figures 8A-9 depict various displays, where the smart card writer 89a (FIG. 1) will write the change by increasing the balance on the smart card, and then return the smart card to the user).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the Freeman et al.-Tuttle et al. combination to include the transaction card writer and central computer as taught by Gustin et al. in order to provide an automated banking machine system which performs usual ATM transactions (Col.3-4, lines 66-67 to line 1).

As per Claim 6, Freeman et al. discloses the system claimed in claim 5, wherein the means for providing machine readable data is a magnetic stripe on the card body (Figure 1B, Magnetic Strip 34), an embedded memory chip with exposed contacts on

the card body (Col.2, lines 40-42 comprising a memory for storing the information), or a bar code printed on the card body (Figure 1B, Barcode 36).

As per Claim 7, Freeman et al. discloses the system claimed in claim 5.

However, Freeman fails to disclose wherein the machine readable data is a unique identifier;

the data base contains information relating to privileges due to the holder of the card; and

the central computer retrieves currently available privilege information based on the unique identifier, updates the information in the data base based on any current transaction and outputs a display command corresponding to the currently available privilege.

Gavin et al. teaches wherein the machine readable data is a unique identifier (Figure 8, Step 308);

the data base contains information relating to privileges due to the holder of the card (Figure 8, Step 310); and

the central computer retrieves currently available privilege information based on the unique identifier (Figure 11A, Step 350), updates the information in the data base based on any current transaction and outputs a display command corresponding to the currently available privilege (Figure 13E, Display Screen).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the flexible chip card of Freeman et al. to include the ability to provide a unique identifier and verify the unique identifier thru a central computer as taught by Gustin et al. in order

to provide an automated banking machine system which performs usual ATM transactions (Col.3-4, lines 66-67 to line 1).

As per Claim 8, the Freeman et al.-Tuttle et al. combination discloses the system claimed in claim 5. However, the Freeman et al.-Tuttle et al. combination fails to disclose further comprising a terminal connected to the central computer for indicating the receipt of value, the terminal including a transaction card writer for updating the short term information displayed on the transaction card based on the value received; and

the computer including means for updating the privilege information based on the amount of value received.

Gavin et al. teaches a terminal connected to the central computer for indicating the receipt of value (Figure 11A, Step 354), the terminal including a transaction card writer for updating the short term information displayed on the transaction card based on the value received (Col.23, lines 5-6 where the smart card writer 89a (FIG. 1) will write the change by increasing the balance on the smart card, and then return the smart card to the user); and

the computer including means for updating the privilege information based on the amount of value received (Figure 13E).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the Freeman et al.-Tuttle et al. combination to include the ability to write information onto a transaction card as taught by Gustin et al. in order to provide an automated banking machine system which performs usual ATM transactions (Col.3-4, lines 66-67 to line 1).

As per Claim 9, the Freeman et al.-Tuttle et al. combination discloses the system of the claimed invention. However, the Freeman et al.-Tuttle et al. combination fails to disclose wherein the terminal is an automated terminal including a credit card reader and/or a cash receiver.

Gavin et al. teaches the terminal is an automated terminal including a credit card reader (Abstract, the ATM machine includes a card reader) and/or a cash receiver (Abstract, ATM machine has a payment acceptor).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the Freeman et al.-Tuttle et al. combination to include the ability to provide a credit card reader as taught by Gustin et al. in order to provide an automated banking machine system which performs usual ATM transactions (Col.3-4, lines 66-67 to line 1).

As per Claim 10 the Freeman et al.-Tuttle et al. combination discloses the system claimed invention. However, the Freeman et al.-Tuttle et al. combination fails to disclose the system, wherein the value is received in the form of cash.

Gavin et al. teaches wherein the value is received in the form of cash (Col.21, lines 64-66 the user will then operate one of the keypads to select by cash, credit, withdrawal from account or smart card).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the Freeman et al.-Tuttle et al. combination to include the ability to provide cash to a user as taught by Gustin et al. in order to provide an automated banking machine system which performs usual ATM transactions (Col.3-4, lines 66-67 to line 1).

As per Claim 11 the Freeman et al.-Tuttle et al. combination discloses the system claimed invention. However, the Freeman et al.-Tuttle et al. combination fails to

disclose the system wherein the value is received in the form of an electronic credit transaction.

Gavin et al. teaches the system wherein the value is received in the form of an electronic credit transaction (Col.22, lines 66-67 any remaining change of less than \$5.00 will be credited to a smart card or to a bank account).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the Freeman et al.-Tuttle et al. combination to include the ability to provide credit transactions as taught by Gustin et al. in order to provide an automated banking machine system which performs usual ATM transactions (Col.3-4, lines 66-67 to line 1).

7. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman et al. (#6,019,284) in view of Tuttle et al. (US RE 40137) in view of Gustin et al. (5,987,439) further in view of Mitchell (PG PUB. 2004/0155104).

As per Claim 12 the Freeman et al.-Tuttle et al. - Gustin et al. combination discloses the system claimed invention. However, the Freeman et al.-Tuttle et al. - Gustin et al. combination fails to disclose the system, further comprising a printer connected to the central computer for printing the long term information on the transaction card.

Mitchell teaches a direct thermal printer together with a position sensor provides for writing the new balances on the cards (pg.4, ¶ [0041]).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the Freeman et al.-Tuttle et al. - Gustin et al. combination to include the ability to print directly on the transaction card as taught by Mitchell in order to provide visible indication of the status of the account (Abstract).

As per Claim 13 Freeman et al. discloses the system claimed invention.

However, Freeman et al. fails to disclose the system card writer further comprising a writer connected to the central computer for writing machine readable data on the card.

Gavin et al. teaches a writer connected to the central computer for writing machine readable data on the card (Col.23, lines 5-6 where the smart card writer 89a will write the change by increasing the balance on the smart card, and then return the smart card to the user).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the flexible chip card of Freeman et al. to include the ability to provide a smart card writer as taught by Gustin et al. in order to provide an automated banking machine system which performs usual ATM transactions (Col.3-4, lines 66-67 to line 1).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Suzuki et al. (#6,457,650) discloses a card with display function.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashford S. Hayles whose telephone number is 571-270-5106. The examiner can normally be reached on Monday thru Thursday 8:30 to 4:00 Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Gart can be reached on (571) 272-3955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elaine Gort/
Primary Examiner, Art Unit 3687

/A. S. H./
Examiner, Art Unit 3687